

DR. JO COLSTON

1948–2003



Photo courtesy of Dr. J. L. Krahenbuhl.

Jo Colston, Head of the Division of Mycobacterial Research at the National Institute for Medical Research at Mill Hill, suffered a fatal heart attack on 20 February 2003; he was 54. Jo's untimely death has shocked and saddened his colleagues and friends. His skill as a scientist and research manager, his breadth of knowledge and interest in all manner of topics, within and outside science, and his relaxed manner and willingness to listen and to help, will be hard to replace. He is survived by his wife and two sons.

Jo was at school in Birmingham, and then moved to Queen Elizabeth College in the University of London to take a degree in microbiology in 1970. He spent 2 yrs at the Central Public Health Laboratory in Colindale, working on the serology of various non-mycobacterial pathogens, before moving to the Department of Medical Microbiology of St. George's Hospital Medical School. There, he started his long-term involvement with mycobacteria, working as a Research Fellow with Dick Hilson on experimental mycobacterial infections, especially infections with *Mycobacterium leprae*.

This was a time when there was an urgent need to develop such animal models; leprosy was a serious public health problem, yet the causative organism could not be cultivated for study in any medium tried. A successful animal model would allow basic research on the disease process, as well as such practical processes as testing anti-leprosy drugs and making counts of viable bacteria. Charles Shepard's mouse footpad model had been an important advance, but required great patience and skill. Further, the infection was slight and local, and bore little resemblance to human leprosy. It was known that in the lepromatous form of leprosy, believed to be the most infectious form and certainly the most serious from the point of view of the patient, there was a lack of cell-mediated immune response to *M. leprae*. Jo studied leprosy infections in immunologically deficient mice, notably *nu/nu* animals, which have no working cell-mediated immune system. This animal model of leprosy has subsequently been of great importance as a source of bacteria, as a way of measuring drug activity and of quantifying very small numbers of viable bacteria. During this period Jo was also exposed to involvement in clinical research, particularly in studying accepted and experimental anti-leprosy drugs.

Jo obtained a Ph.D. at the end of his time at St. George's and moved to SRI International in California, first with a Heiser Fellowship for leprosy research, and subsequently as a senior scientist on the staff of the institute. There he worked with Howard Fieldsteel on alternative animal models for leprosy, particularly athmic and neonatally thymectomized rats. He remained in California for 3 yrs, but decided to return to the U.K. Funds were found to allow him to return to St. George's, where he was appointed as a Lecturer for 5 yrs starting in 1981, in Dick Hilson's department.

His career plan was diverted by the retirement of Dick Rees, who ran the Laboratory for Leprosy at the NIMR. Jo was invited to apply for the post, and was appointed in

1982. This was a remarkable appointment: Jo was young (the youngest person ever to run a Division at Mill Hill), and though he had an excellent research and publication record, his interests were not completely aligned with the intended research plan for the Division. In particular, he had rather little experience in immunology, an area where the work was expected to expand. The choice turned out to be a brilliant one; Jo expanded the Division, managed the shift of emphasis to tuberculosis when funding for leprosy research became scarce, and set up numerous collaborations with mycobacterial groups in the U.K. and abroad. He was an early exploiter of the new ability to apply powerful molecular biological techniques to mycobacteria, but more 'classical' approaches were also used in his general program of investigating the basic mechanisms of mycobacterial disease.

A particular characteristic of Jo was that he rarely refused a request from would-be visiting workers. At times, English could be a minority language in the Division. Many of the visitors retained strong scientific links with the Division after their return home, and continued collaborative research. In consequence, there came to be an extensive, although informal, international research network associated with the Division. More formally, Jo was much in demand as an adviser and participant in international research programs, where his calmness, friendliness, and wisdom were much appreciated. These personal traits were also appreciated by his staff at Mill Hill. He always seemed to be able to find time to hear about current research or to advise about problems.

Although the Division at the NIMR concentrated on tuberculosis research in latter years, Jo did not abandon his early involvement with leprosy. Specifically, he continued Dick Rees' membership on the Medical Advisory Committee of LEPRO. He also managed the leprosy clinic/research centre in Hyderabad, India, jointly funded by LEPRO and the MRC, and rather recently greatly assisted by support from the BBC Television 'Blue Peter' Appeal. He enjoyed participation in clinically orientated research; the Hy-

derabad clinic offered such participation, as did various collaborations in the U.K.

Like many senior scientist-managers, Jo was left with less time than he wished for personal work in the laboratory, though he was a good experimenter and was particularly skillful in the complexities of handling infected animals. Much international travel was involved in his program, and though Jo tried to limit this, he was also able to enjoy it when it could not be avoided, accumulating a fund of stories about entertaining (at least in retrospect) adventures. He particularly liked travelling in India; there was an annual visit to Hyderabad and also regular visits to the All India Institute for Medical Research in New Delhi, as well as many other places. There were, of course, many visits to the United States, where his skill as a lecturer was appreciated. He particularly enjoyed meetings in New Orleans, where the food and the music provided added value to the science.

He was careful to not allow himself to be overwhelmed by the demands of his job, to the exclusion of all else. He derived enormous pleasure from the activities of his family, and enjoyed wine and food, plays and films, gardening and art. He had some talent as an artist, and those who heard him talk about science will have been exposed to his visual aids, which he usually designed and executed himself, using his favored Apple laptop computer. An important interest was cricket; he was a regular weekend player with a team based in the area where he lived, and took any opportunity offered to play or watch the game during working visits abroad. On at least one occasion, he represented the MRC against The Gambia during a visit to the MRC's Unit there.

Jo's many colleagues and friends—and those in the first category usually considered themselves also to be in the second—are dismayed and frustrated by his early death. Nonetheless they can celebrate his considerable achievements, enjoy the privilege of having known him, and relish pleasant memories of his company.

—Philip Draper